Kohsaar Academy

Maths Lesson Plans
Level 4
Term 2

Kohsaar Academy

Maths Lesson Plans
Level 4
Term 2

Level 4 Term 2 Week 1 Day 1	**Lesson Plan**

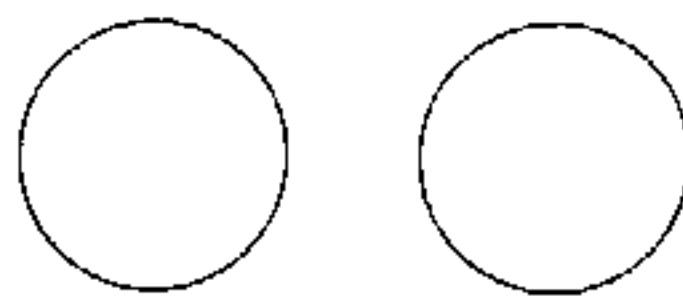
Objective: To teach the multiplication of fraction

Activity: Written work

Material: Worksheets, pencils, cutouts of round shapes

Procedure:

Warm up:

- Paste these cutouts on the board and ask and record the answers.

  - How many shapes are there? (3)
  - What is the difference that can you see in them? (two are full and one is half)

Explain 1:

- There are 2 (full/whole shapes)
- And a 1/2 (half shape)
- When we will join these shapes, we will get = 2 wholes 1/2
  - $= 2\frac{1}{2}$

Explanation 2:

- In the cutouts it is shown by 2 full circle and another circle half full.
- This is called a mixed number because it has both 2 whole number and a fraction.
  - Explain some more example like 3 1/4, 4 1/5 etc

Class work: page 49 (4-A part 1)

Wrap up: Homework, show these whole numbers through the picture in your notebooks.
5 1/2, 3 7/8, 2 4/5

Level 4 Term 2 Week 1 Day 2	Lesson Plan

Objective: To teach the concept of improper fraction

Activity: Written work

Material: Cutouts as shown in the procedure. worksheets, pencils.

Procedure:

- Paste a 1/2 of a cut out on the board and ask what does this cutout show? (1/2)

- Paste another 1/2 of a cutout to make it 1 whole and ask, what is this now? (1 whole)

- Paste another 1/2 now it will be say "one and one half"

Explanation:

- If we think of the whole as 2 halves this can also be written as 2/2 + 1/2 = 3/2, which is called improper fraction because the numerator is greater than denominator.
- Explain some more examples like this and let students practice more questions.

Class work: Page 51 (4-A part 1)

Level 4
Term 2
Week 1
Day 3

Lesson Plan

Objective: To revise the concept of improper fractions and mixed numbers.

Activity: Written work

Material: Material of day 1 and 2 of week 1, term 2, worksheets, pencils.

Procedure: Follow the procedures of day 1 and 2 of week 1, term 2

Class work: Page 52 (4-A part 1)

Homework: Learn tables of 9, 10 and 11

Level 4 Term 2 Week 1 Day 4	**Lesson Plan**

Objective: To teach expressing an improper fraction as a mixed number.

Activity: Written work

Material: Cutouts as shown in procedure, worksheets, pencils

Procedure: Paste these cutouts on the board,

write and explain through this process.

4/4 + 4/4 + 3/4
= 8/4 + 3/4 = 11/4
= 2 + 3/4
= 2 3/4

Explain some more examples like this.

Class work: Page 53 and 54

Level 4 Term 2 Week 1 Day 5	Lesson Plan

Objective: To teach expressing the mixed numbers as improper

Activity: Written work

Material: Cutouts, worksheet, pencils.

Procedure:

- Paste these cutouts write and ask:
    - Do you know what does all this show
- Teacher explanation.
    - $2\frac{1}{2} - 2 + 2/3$
      $= 3/3 + 3/3 + 2/3$
      $= 6/3 + 2/3$
      $= 8/3$
    - Explain some more examples

Class work: Page 55, 56 (4-A part 1)

Homework: Page 57

Level 4 Term 2 Week 2 Day 1	**Lesson Plan**

Objective: Students will be able to write the fractions as whole number.

Activity: Written work

Material: Cutouts as shown in procedure, worksheets, pencils.

Procedure:

- Place this type of 12 cutouts on the table
- Call some volunteers to join these cutouts to make whole shapes
- Observe how many whole can be made.

- Write 12/4 and ask how many whole are there in 12/4

= 12fourths = 3 wholes..

Example 2:

25/10
= 2 whole 5/10
= 2 5/10
Explain some more examples like this

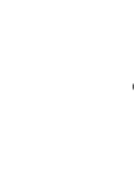
Class work: Page 58 (4-A part 1)

Warp up: Homework, Assessment topic "fractions"

Level 4 Term 2 Week 2 Day 2	Lesson Plan

Assessment in notebooks

Level 4
Term 2
Week 2
Day 3

Lesson Plan

Objective: To practice the fractions

Activity: Written work

Material: worksheet, cutouts, pencils

Procedure:
Warm up:

- Paste 20 leaves on the board and ask students to make two groups of these leaves.
- Draw and ask
  - What is fraction?
  - Does this figure show, _____ of the figure is shaded ask some more questions like this.

Class work: Page 5 and 6 (4-A part 2)

Homework: Page 26

Level 4 Term 2 Week 2 Day 4	Lesson Plan

Objective: To teach finding the value of fractions

Activity: Written work

Material: Charts as shown in the procedure

Procedure:

- Paste the chart on the board and ask
    - What is 1/5 of 25?

- Explanation: Divide 25 into 5 equal groups, one group is 1/5 of 25
    - 1/5 of 25 is 5
    - 2/5 of 25 is 10

- Ask, find the value of 1/7 of 14
    - divide 14 into 2 equal groups
    - One groups is 1/7 of 14
    - = 1/7 of 14 is 2
- Similarly also explain the other examples from page 7, exercise 28.

Class work: Page 7

Homework: None

Level 4
Term 2
Week 2
Day 5

Lesson Plan

Objective: Students will be able to find the value of given fraction

Material: Worksheet / pencils

Activity: Finding value

Procedure: Use the same procedure of the previous day

Brief explanation: Write on board find the value of – 1/2 of 8
Tell them 1/2 of 8 is the same as 1/2 x 8 = 4
Similarly explain other question of page 8

Class work: Page 8

Homework: page 9

Level 4 Term 2 Week 3 Day 1	**Lesson Plan**

Objective: Students will be able to find the value of given fraction

Material: Worksheet / pencils

Activity: Finding the value

Procedure: Use the same procedure of the previous day.

Class work: page 11, 12

Homework: page 13

Level 4 Term 2 Week 3 Day 2	Lesson Plan

Objective: Students will be able to find the value of given fraction

Material: Worksheet / pencils

Activity: Finding the value of fraction

Procedure: Follow the same procedure of day 5 week 2 term 2

Class work: page 10

Homework: Assessment of value of fraction

Level 4 Term 2 Week 3 Day 1	**Lesson Plan**

Objective: Students will be able to find the value of given fraction

Material: Worksheet / pencils

Activity: Finding the value

Procedure: Use the same procedure of the previous day.

Class work: page 11, 12

Homework: page 13

Level 4 Term 2 Week 3 Day 2	Lesson Plan

Objective: Students will be able to find the value of given fraction

Material: Worksheet / pencils

Activity: Finding the value of fraction

Procedure: Follow the same procedure of day 5 week 2 term 2

Class work: page 10

Homework: Assessment of value of fraction

Level 4
Term 2
Week 3
Day 3

Lesson Plan

Assessment will be taken in notebook as decided by the teacher

Level 4 Term 2 Week 3 Day 4	**Lesson Plan**

Objective: Students will be able to present the given data in graph.

Activity: Reading graph

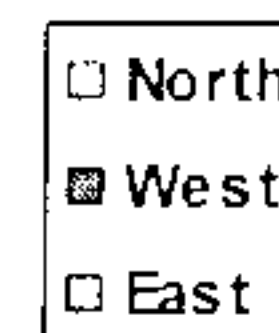
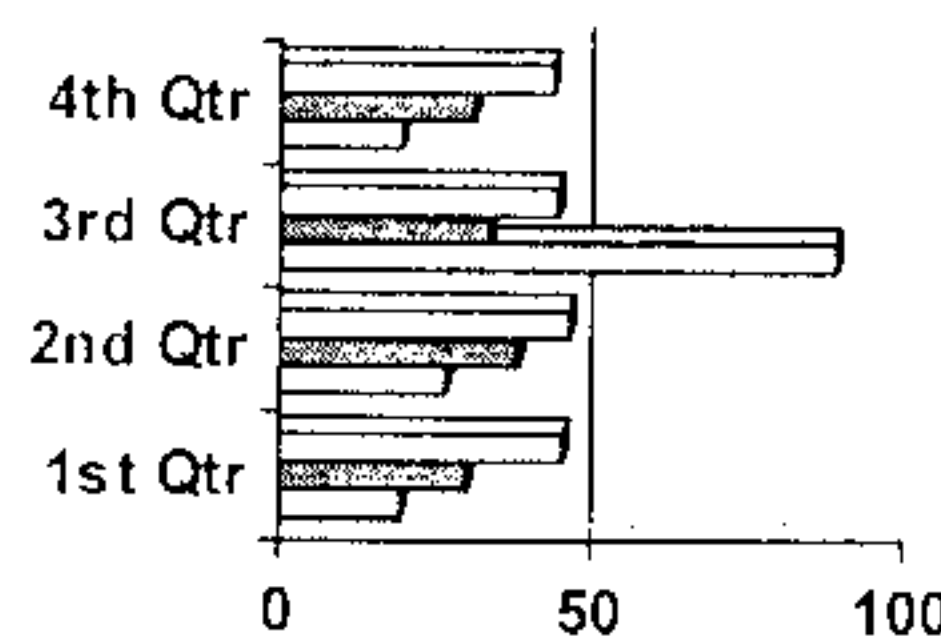
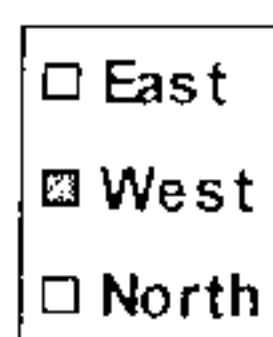
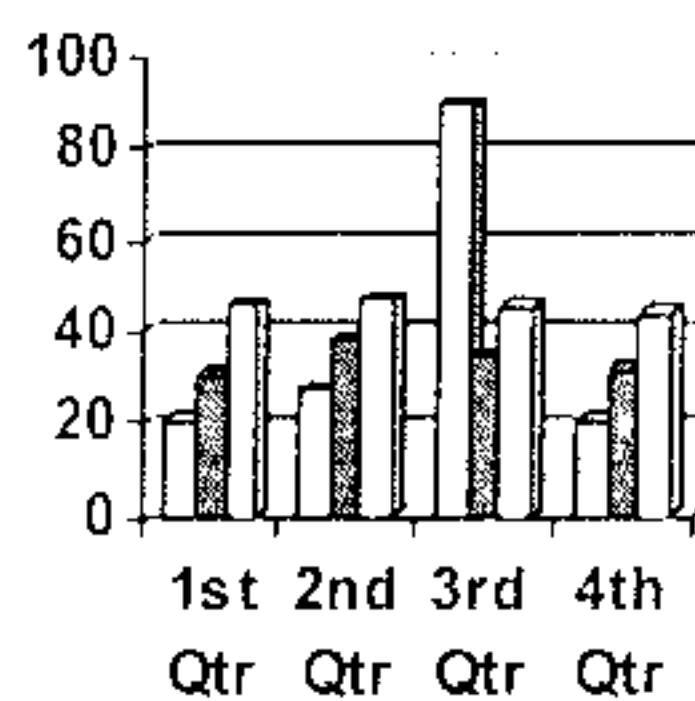
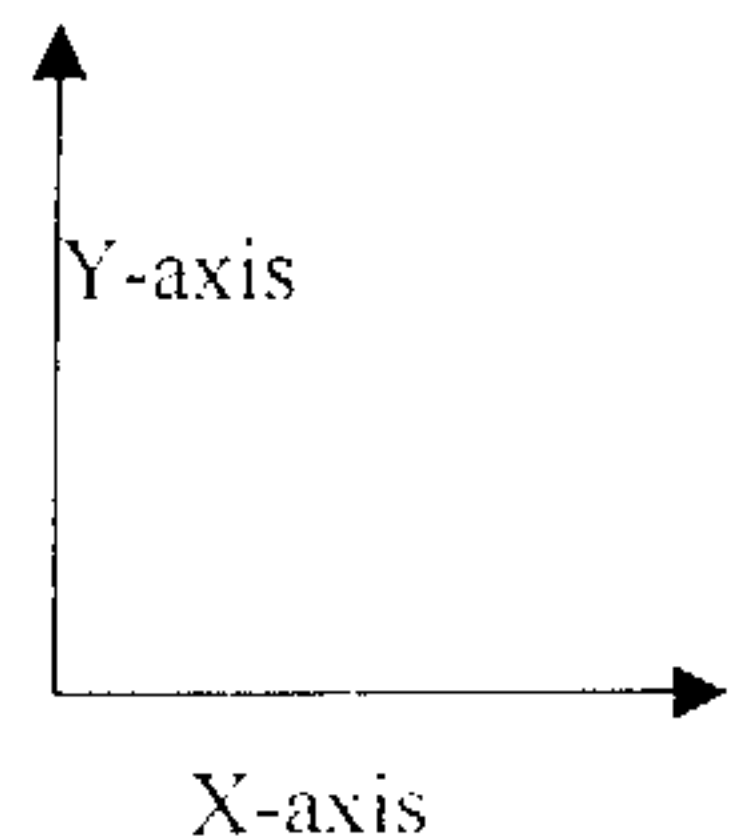
Material: Charts of bar graphs, Pencils, worksheets, vertical + horizontal

Procedure:

Warm up:

- When we are given a lot of information how can we represent it?
- What is graph?

Explanation:

- Information sown in the form of a picture, diagram or drawing is called graph
- Graph make it easier to understand information
- Graph are used a lot in mathematics and are very useful
- Paste a chart of bar graph on the board and explain
- A bar graph has information shown in the form of bars, and the bars can either be vertical or horizontal. It is used to show comparisons between categories.

- Paste these charts on the board.
- Bar graph has 2 axis
  - The horizontal axis ----- x-axis
  - The vertical axis ------ y-axis
- Numbers or amount can be represented x-axis on y-axis.
- Names of objects or things represented on x-axis.

Class work: Page 30

Homework: page 31, 32

Level 4
Term 2
Week 3
Day 5

Lesson Plan

Objective: Students will be able to present the given data in graph

Activity: Reading graph

Material: Pencils / worksheet

Procedure: Follow the same procedure of day 4, week 3, term 2

Class work: page 33, 34

Level 4 Term 2 Week 4 Day 1	**Lesson Plan**

Objective: Students will be able to answer the questions by studying the graph

Activity: Reading graph and writing answers

Material: Worksheet / pencils

Procedure: Follow the same procedure of day 4, week 3, term 2.

Class work: Explain question 1, exercise 39 and question 2 from exercise 38, page 35 and 36. Written work on page 35 and 36.

Homework: page 39

Level 4 Term 2 Week 4 Day 2	Lesson Plan

Objective: Students will be able to answer the questions by studying the graph.

Activity: Reading graph and writing answer

Material: Worksheet / pencils

Procedure: Follow the same procedure as used in previous day.

Class work: Explain questions 2 and 3 of exercise 39
Written work page 37 and 38

Homework: Assessment of topic "graph"

Level 4 Term 2 Week 4 Day 3	Lesson Plan

Assessment will be taken in notebook

Homework: page 40

Level 4 Term 2 Week 4 Day 4	**Lesson Plan**

Objective: Students will be able to know the concept of angles

Activity: Recognizing angles

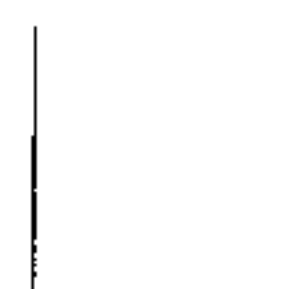
Material: Protractor, model of angles, pencils

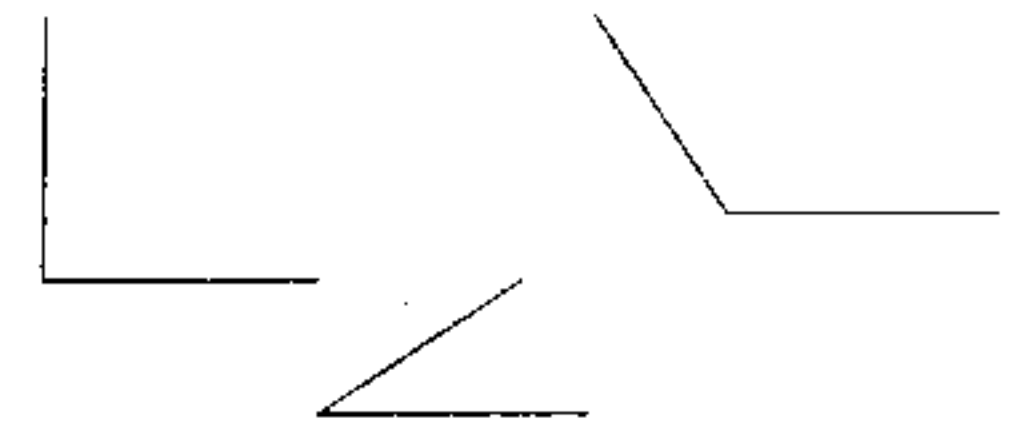
Procedure:

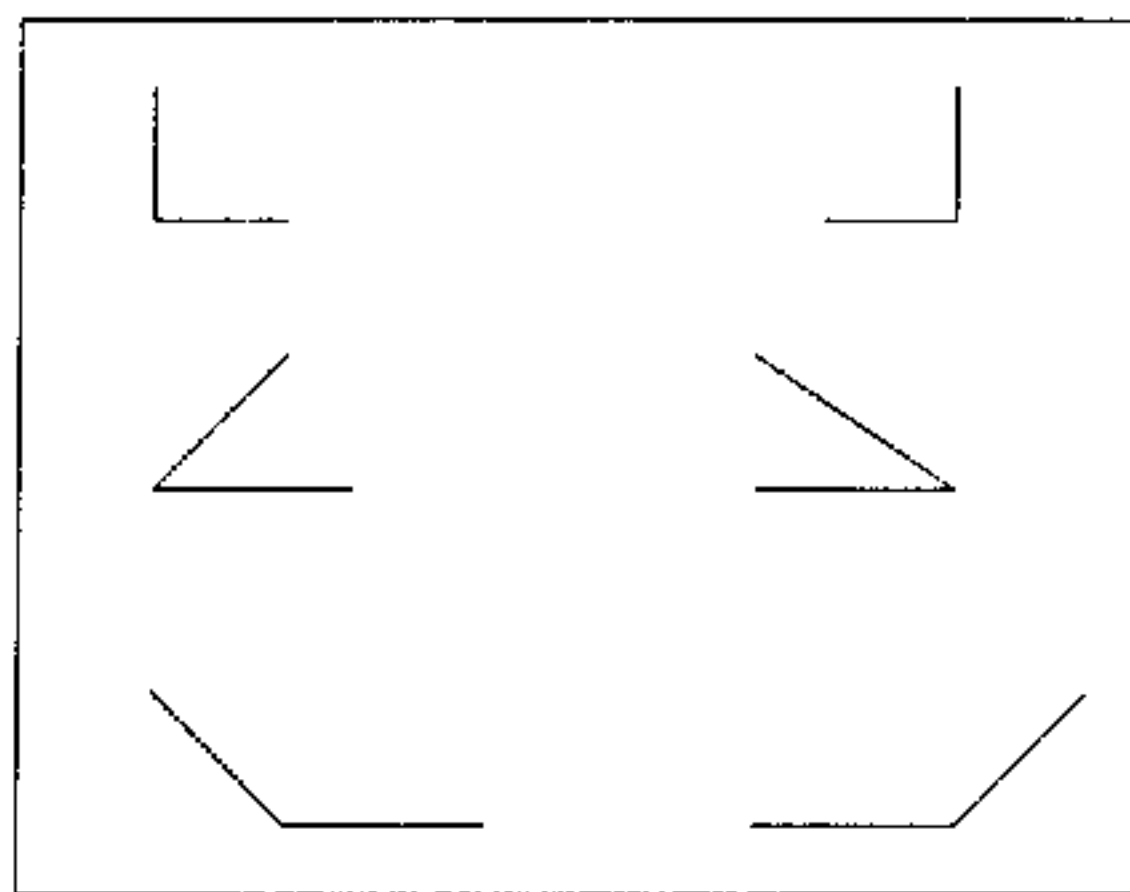
Warm up:

- What is angle?
- Show protractor and ask what is it?
- It is used for what?

Explanation:

- It is protractor. It is used for measuring angles.
- Anytime two lines or rays come together, they make an angle or when two lines or rays join together it make angle.
- Angle can be named with three points
- We measure angles in degrees.
- Draw an angle on the board like this.
- We write 90° for 90 degrees.
- Make pair provide each pair with protractor
- Say to look at the protractor and explain
- There are 2 curves one is at top and other is at the bottom.
- Read bottom curve from 0 to 180 (right to left)
- Read top curve from 0 to 180 (left to right)
- When we measure angle we use both these readings depends upon that whether angle is open to right or left.
- When angle is open to right we use bottom curve.
- When angle is open to left we use top curve.
- Paste a chart of angles on board and explain.

Explanation 2:

- Angles less than 90° angles are called acute angles.
- 90° angles are called right angles
- Angles greater than 90° angles are called obtuse angles.
- A straight line can be said to have a angle of 180°
- An angle which measurement is more than 180° is called reflex angle.
- For further explanation use the angle model as used in level 5, day 4, week 7 and term 1.

Group work:

- Make pairs
- Provide each pairs loose sheet with angles drawn on it like

- Ask to measure these with protractor
- Ask each pair to demonstrate their work.
- Paste these in class.

Homework: None.

Level 4 Term 2 Week 4 Day 5	**Lesson Plan**

Objective: Students will be able to measure the angles

Activity: Measuring the angles

Material: Protractor, worksheet, pencils

Procedure: Follow the same procedure of day 1, week 4, term 2

Class work: Page 41, 42

Level 4
Term 2
Week 5
Day 1

Lesson Plan

Objective: Students will be able to measure different angles with help of protractor

Material: Protractors, pencils, worksheets, angles chart

Activity: Measuring angles

Procedure: Follow the same procedure of day 4, week 4 and term 4.
Brief explanation of using protractor

Class work: Page 43 and 44 of worksheet

Homework: page 45 and 46

Level 4
Term 2
Week 5
Day 2

Lesson Plan

Objective: Students will be able to measure the angle which one greater then 180°

Activity: Measuring angles grater than 180°

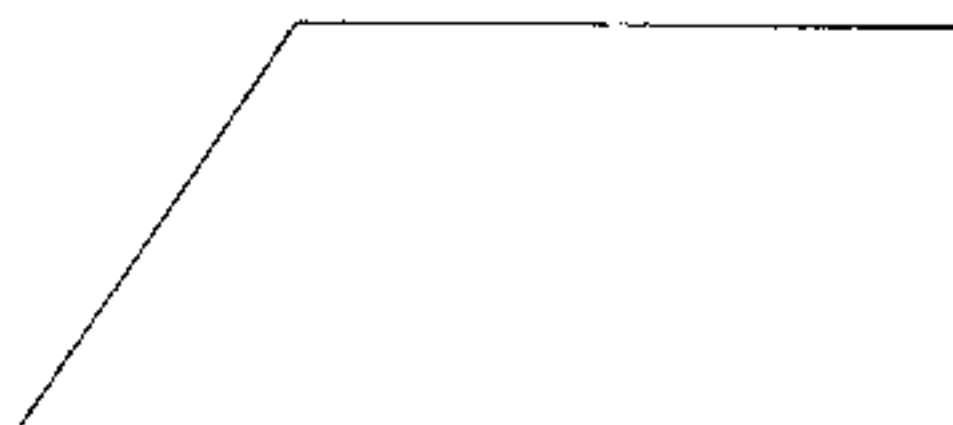
Material: Protractor, angles model, pencils, loose sheets of angles drawn from page 48.

Procedure:

Warm up: Ask

- What is angle?
- What is 90° angle called?
- What is less than 90° angle called?
- What is more than 90° angle called?
- What is 180° angle called?
- What is reflex angle?

Explanation:

- Paste the angle chart on the board and revise all types of angles.
- Brief explanation:
- An angle which measure is more than 180° is called reflex angle
- Show the angle model to the children and tell them there are 360° in a complete turn.
- Using the model tell them
    - A 1/4 turn is right angle, it is 90°
    - A 1/2 turn is 2 right angles, it is 180°
    - A 3/4 turn is 3 right angles, it is 270°
    - A complete turn is 4 right angles, it is 360°
- Draw angle on the board like

< X is between 180° and 360°

- We can measure it first by measuring its inner angle. Than we subtract this angle degree from total degrees of complete turn that is 360° - 120° = 240°
- Now explain some angles from page 48, 49.

Pair works:

Give some loose sheets angles drawn on it, ask students to measure these angles. Help each pair in measuring angles.

Homework: None

Level 4 Term 2 Week 5 Day 3	**Lesson Plan**

Objective: Students will be able to measure the angles which are greater than 180

Activity: Measuring angles greater than 180°

Material: Protractor, angles model, pencils.

Procedure: Follow the same procedure of day 2, week 5, term 2

Class work: Page 48 and 49 (4-A part 2)

Homework: Assessment of angles

Level 4 Term 2 Week 5 Day 4	Lesson Plan

Assessment will be taken in notebook, questions selected by the teacher.

Homework: Page 50 in worksheet

Level 4 Term 2 Week 5 Day 5	**Lesson Plan**

Objective: Students will be able to know about perpendicular lines

Activity: Recognizing perpendicular lines.
Forming perpendicular lines

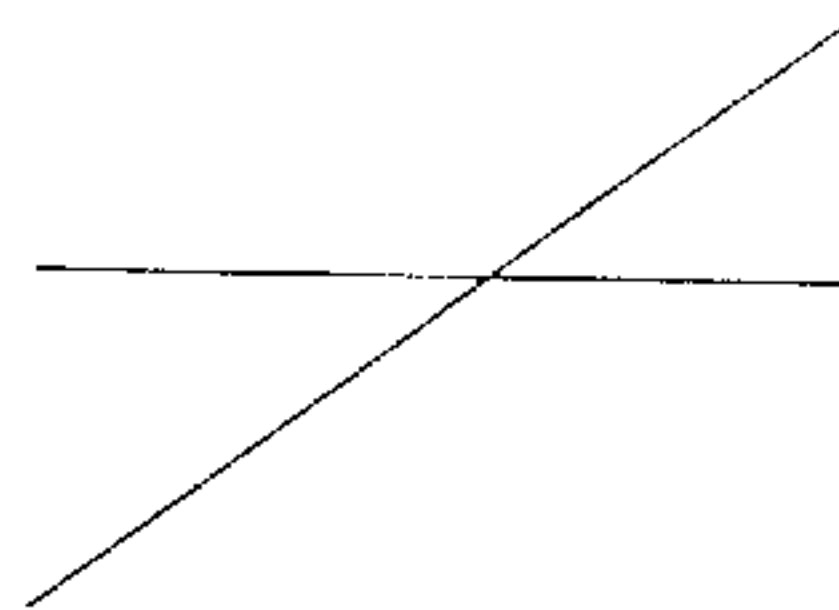
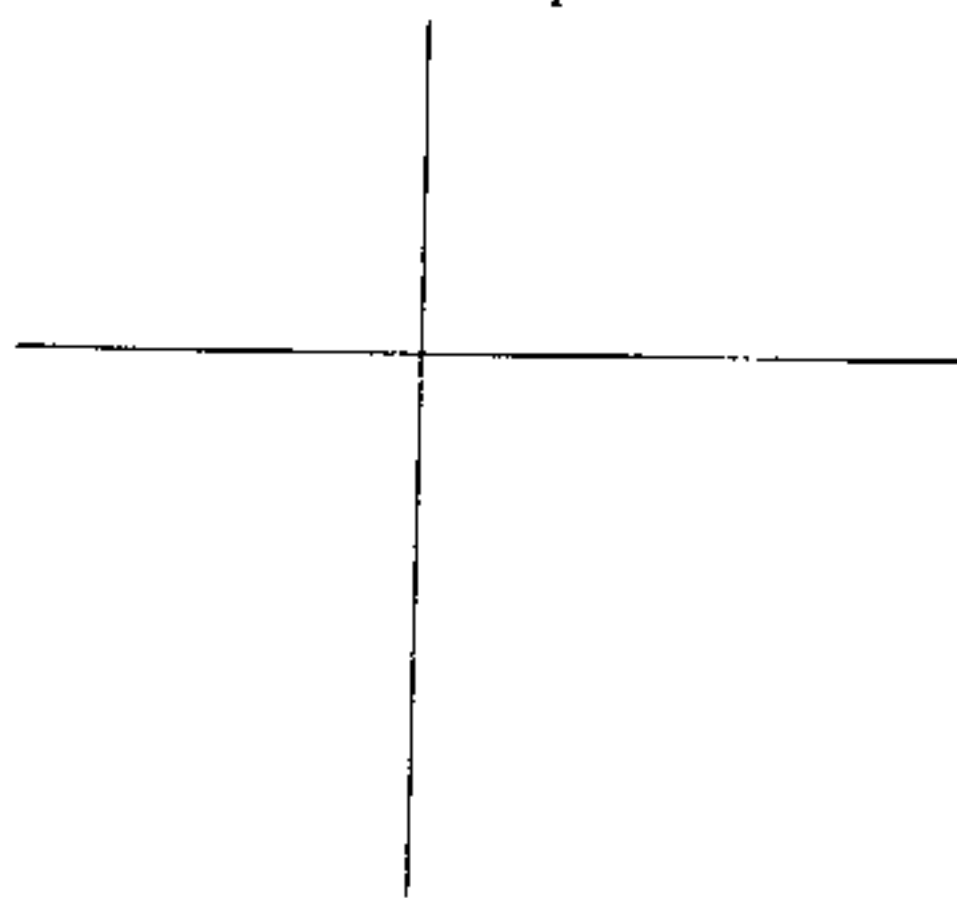
Material: Set squares, worksheet / pencils

Procedure:

Warm up:

- Say class to look at the board
- How many sides it has?
- Pointing towards the board's vertical and horizontal sides and ask which angle these two lines make.

Explanation:

- When two lines intersect (cross) and form right angles these lines are perpendicular.
- Ask students to observe the class and show teacher the perpendicular lines.
- Draw on board
  - Step one.

These two lines are perpendicular lines. these two lines are not perpendicular lines.

- Step 2.
  - We can use a set square to check the perpendicular lines.

Class work: page 55

Homework: Page 53

Level 4 Term 2 Week 6 Day 1	Lesson Plan

Objective: Students will be able to recognize and name each pair of perpendicular line.

Activity:

- Recognizing perpendicular lines
- Naming perpendicular lines

Procedure: Follow the same procedure of day 5, week 5, term 2

Class work: page 54

Homework: None

Level 4 Term 2 Week 6 Day 2	**Lesson Plan**

Objective: Students will be able to draw line perpendicular to given lines

Activity: Drawing perpendicular line

Material: Set square, pencils, worksheet

Procedure: Follow the same procedure of day 5, week 5, term 2

Class work: Page 56

Homework: Assessment of perpendicular lines.

Level 4 Term 2 Week 6 Day 3	Lesson Plan

Assessment will be taken in notebook

Homework: Write and learn the table of 12

Level 4
Term 2 **Lesson Plan**
Week 6
Day 4

Objective: Students will be able to know about the parallel lines.

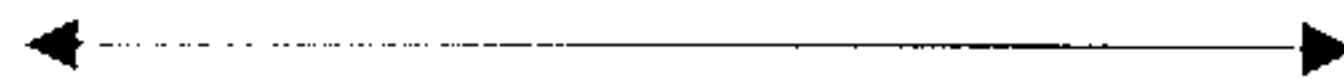
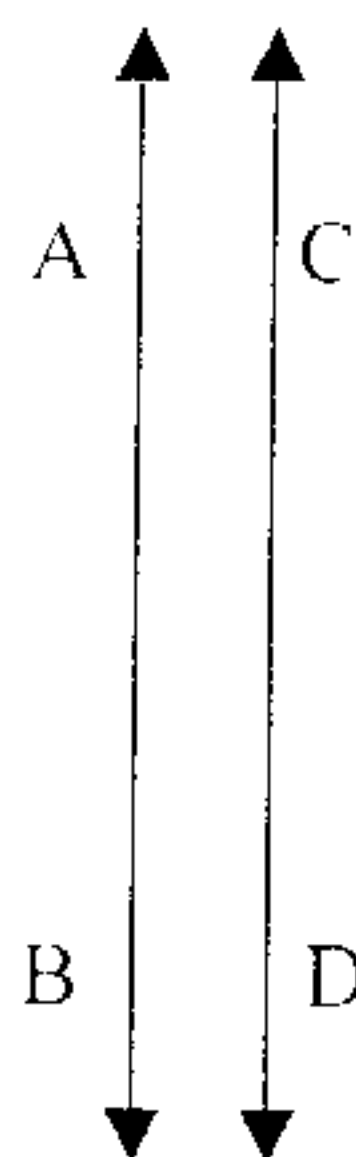
Activity: Recognizing parallel lines.
Naming the parallel lines

Material: Worksheet / pencils / Objects from regalia

Procedure:
Warm up:

- Ask what is line?
- Ask any volunteer to draw a line on board
- Ask another volunteer to draw a ray
- Ask another volunteer to draw a line segment.

Explanation:

- A line goes on forever in both directions
- A ray starts at one point and goes forever in one direction.
- A line segments starts at one point and ends at another.

Explanation of parallel lines: Lines that never intersect (cross) are called parallel lines.

- Lines AB and CD are parallel
- Give them examples of parallel lines from regalia. Ask them to observe parallel lines of objects from regalia.

Class work: Page 57

Level 4 Term 2 Week 6 Day 5	**Lesson Plan**

Objective: Students will be able to know about the parallel lines.

Activity: Recognizing parallel lines.
Naming parallel lines

Material: Worksheets / pencils / objects from regalia.

Procedure: Follow the same procedure of day 4, week 6, term 2.

Class work: Page 59 and 60

Homework: Page 58

Level 4
Term 2
Week 7
Day 1

Lesson Plan

Objective: Students will be able to draw and distinguish between parallel and perpendicular lines.

Activity: Drawing of parallel and perpendicular

Material: Notebook, pencils. set squares

Procedure: Follow the same procedure for explaining the parallel and perpendicular lines as used in previous days.

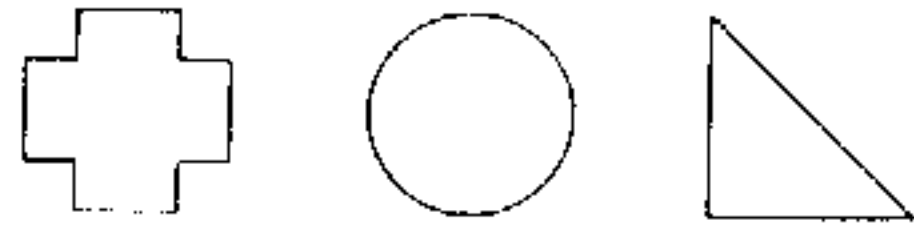
Class work:

- Using a set square and ruler draw the following.
    - A pair of parallel lines.
    - A pair of perpendicular lines.
- Draw 2 objects from class and mention the parallel and perpendicular lines.

Homework: Assessment of parallel and perpendicular.

Level 4 Term 2 Week 7 Day 2	Lesson Plan

Assessment will be taken in notebook

Level 4 Term 2 Week 7 Day 3	**Lesson Plan**

Objective: Students will be able to find the area of the given figure.

Activity: Finding area and perimeter

Material: Pages of math's notebooks, square card, figure cutouts, pencils.
Procedure:
Warm up:

- Observe different shapes in the class.
- Which shapes can you see in the class
- Note student's responses on the board by drawing these shapes.
- **Task 1:**
    - Make groups in the class.
    - Give different cutouts and pages of math (square lined)
    - Say students to place these shapes on the given pages like:-

    - Students trace these figures on the same page.
    - After shapes, students count the square fit into the shape.
    - Teacher explain by drawing that a = 1 cm^2 and = ½ cm^2
    - Ask each group to present their work, and then paste their work in class.
    - Teacher explain, when we measure the area of a shape, we are counting how many square units will fit inside that shape.
- **Task 2:**
    - Give cutouts of regular and irregular shapes like
    - Give them thread
    - Ask to wrap thread around each shape & find and note the measurement of the thread.
    - Perimeter is adding up the total length of all the sides.
    - Group presentation of their work.
    - **Wrap up:**
- What is the area?
- What is the perimeter?

Homework: None.

Level 4 Term 2 Week 7 Day 4	Lesson Plan

Objective: Students will be able to know the concept of area.

Activity: Finding area by formula

Material: Thread, shapes cutouts, loose sheets, Pencils

Procedure:

Warm up:

- What's the shape of board?
- How can we find its area?

Explanation:

- When we measure the area of shape we are counting how many square units will fit inside that shape.

Task 1:

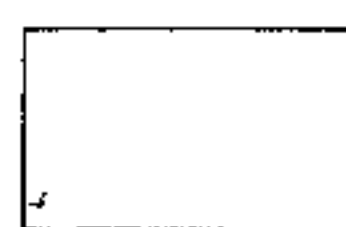
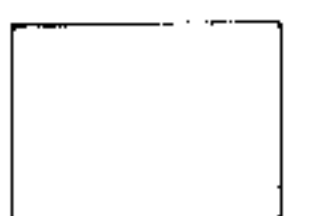
- Make groups
- Provide each group with square, triangle and rectangular cutouts and square lined paper.
- Ask to trace shapes and then counts how many squares are in the shapes.
- Record the area.

Brief Explanation:

- We can find area if square by multiplying l x l, and area of rectangle by l x b, area of triangle 1/2 (l x b)

Task 3:

- Paste chart of formula area in front of class.
- Say class to read formula after teacher.
- Provide loose sheets each group with drawn shapes of and with measurement of sides written like:-

etc

- Ask find area with formula.
- Present each group work in front of class.
- Paste their work in notebook.

Homework: Write area formula of rectangle. square and triangle.

Level 4
Term 2
Week 7
Day 5

Lesson Plan

Objective: Students will be able to know the perimeter of , and by formula.

Activity: Finding perimeter

Material: Cutouts of , and , thread, loose sheets.

Procedure:

Warm up:

- What is area?
- What is the shape of board?
- What is area of rectangle (board)?
- What is area of triangle?
- What is area of square?

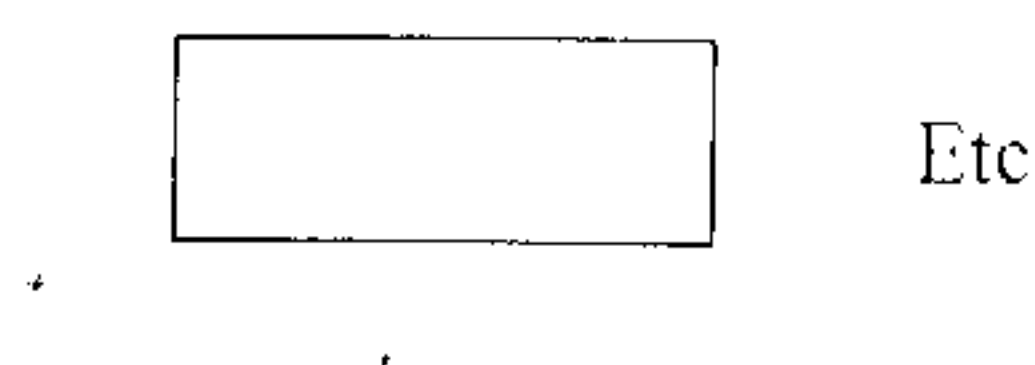
Task 1:

- Make groups
- Provide each group with square, triangle and rectangle cutouts & thread & loose sheet.
- Ask to wrap thread around the shape and note its measurement with help of scale

Brief explanation: Perimeter is the distance around the outside of a figure. This can be found by adding up the length of all the sides.

Task 2:

- Paste chart of perimeter formula in front of class
  Perimeter of square = $4 \times L$
  Perimeter of triangle = Sum of length of 3 sides
  Perimeter of rectangle = $2 (L + W)$
- Say class to repeat formula after teacher
- Provide each group with loose sheets with drawn shapes of , and with measurement of each side written like

Etc

- Ask find perimeter with formula.
- Each group present its work
- Paste their work in notebooks

Homework:

- Write perimeter formula of square, triangle and rectangle in notebook.
- Find area and perimeter of matchbox, tissue box, windows.

Level 4
Term 2 **Lesson Plan**
Week 8
Day 1

Objective: Students will be able to find area and perimeter , and

Activity: Finding area, finding perimeter

Material: Cutout of square, triangle and rectangle with sides' measurement written on, pencils, chart of formulas, notebooks.

Procedure: Follow same procedure for explanation of area and perimeter of previous day.

- Give each child cutouts of , and with sides' measurement.
- Ask them to paste figure in notebooks and find area and perimeter of each shape with the help of formula.

Homework: Assessment of area and perimeter

Level 4
Term 2
Week 8
Day 2

Lesson Plan

Objective: To assess the students assessment will be taken in the notebooks,
Assessment decided by the teacher.

Level 4 Term 2 Week 8 Day 3	**Lesson Plan**

Objective: Students will be able to find unknown sided of a shape and area of the shape.

Activity: Finding unknown sides.

Material: Worksheet, pencils

Procedure:
Warm up:

- What is the perimeter of a square?
- What is the perimeter of rectangle?
- What is the area of square?
- What is the area of a rectangle?

Explanation:

- Paste the chart of formulas of area and perimeter.
- Say class to revise formulas after you
- Draw a rectangle on the board.
- Ask class perimeter of rectangle and write on board.

- Explain. Perimeter = 28cm

Perimeter =
28cm

?

- Ask class, which sides of rectangle are equal? (opposite)
- How many sides are equal?
- When we are given measurement of 2 opposite sides and perimeter of a shape and asked to find the measurement of two unknown sides.
- We divide perimeter by 2
    - = 28/2 = 14
- Subtract given side from this value,
    - 14 – 9 = 5
- We get the unknown side

- Now
    - Area = l x b
      = 9 x 5 cm
      = 45cm

  Similarly explain (b) and (c) of exercise 49, page 61

Class work: page 61

Homework: Class work is homework

Level 4 Term 2 Week 8 Day 4	**Lesson Plan**

Objective: Students will be able to find unknown sides of a shape and perimeter.

Activity: Written work

Material: Worksheet, pencils.

Procedure: Follow the same procedure for explaining this concept as the concept of day 3, but use area instead of perimeter.

Class work: Page 62

Homework: Assessment of page 61, 62

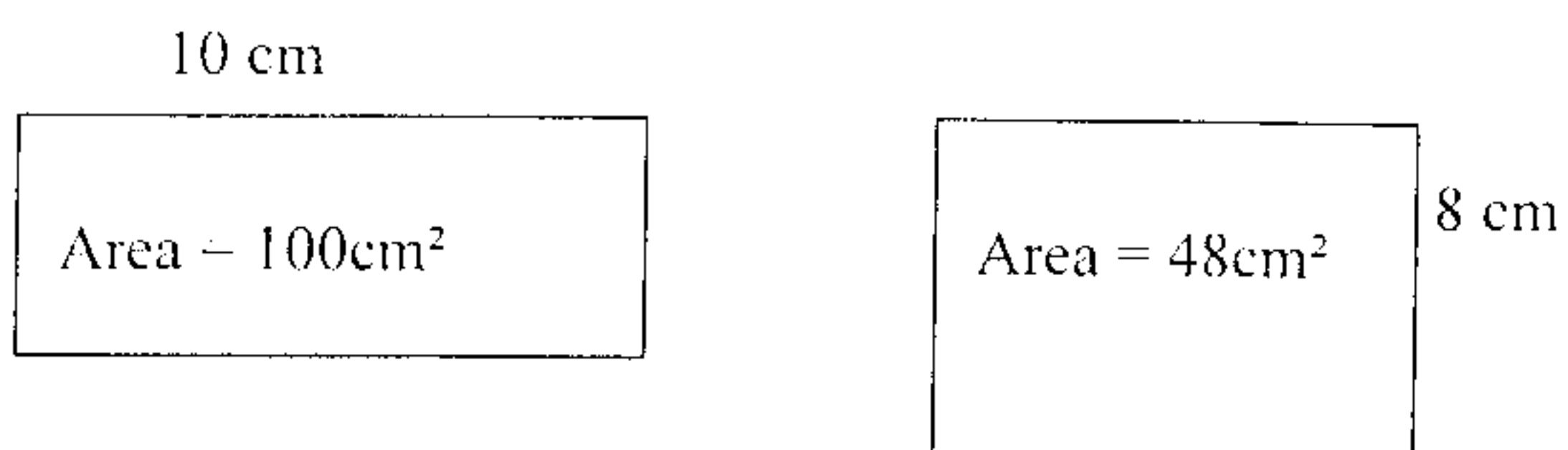
Level 4
Term 2
Week 8
Day 5

Lesson Plan

Objective: To assess the students' concept of finding unknown sides. area and perimeter with known side.

Activity: Assessment

Material: Pencils, loose sheets

Procedure:
Q: Find the unknown side and the perimeter of each of the given rectangle.

Q: Find the unknown side and the area of the given figures.

Perimeter = 26cm
?
7m

Perimeter = 42cm
?